

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)
890050.513USPC

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Application Number

10/516,424

Filed

November 29, 2004

Signature _____ **Via Express Mail**

Typed or printed
name _____

First Named Inventor

Tatsuya Kato

Art Unit

2627

Examiner

Linh Thi Nguyen

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

- ☐ applicant/inventor.
☐ assignee of record of the entire interest.
 See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
 (Form PTO/SB/96.)
☒ attorney or agent of record.
 Registration No. 57,862
☐ attorney or agent acting under 37 CFR 1.34.
 Registration number if acting under 37 CFR 1.34 _____


 Signature

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Typed or Printed Name

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Telephone Number

April 10, 2008

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒ *Total of one form is submitted.

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Tatsuya Kato et al.
Application No. : 10/516,424
Filed : November 29, 2004
For : METHOD FOR RECORDING DATA IN OPTICAL RECORDING
MEDIUM, AN APPARATUS FOR RECORDING DATA IN
OPTICAL RECORDING MEDIUM AND OPTICAL RECORDING
MEDIUM

Examiner : Linh Thi Nguyen
Art Unit : 2627
Docket No. : 890050.513USPC
Date : April 10, 2008

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW REMARKS

Claims 1, 4-13 and 16-22 are pending in the present application. Claims 4 and 12 have been amended in an Amendment previously submitted to place the claims in better form for consideration on appeal.

This request for pre-appeal review is in response to the Office Action mailed October 10, 2007. The Office Action rejected claims 1, 4, 5, 12, 13, 16, 17 and 19 under 35 U.S.C. § 102(b) as anticipated by U.S. patent no. 6,404,713 issued to Ueki et al. ("Ueki"). The Office Action rejected a number of dependent claims as being unpatentable over Ueki in view of other cited references. Applicants respectfully request review by a Pre-Appeal Panel in light of the following remarks.

Rejections under 35 U.S.C. § 102(b)

Applicants traverse the above rejections because Ueki fails to teach the elements of independent claims 1, 12, 13 or 19.

In particular, claim 1 recites, *inter alia*, a “method for recording data in an optical recording medium wherein data are recorded in a write-once type optical recording medium . . . wherein the number of pulses is set to one (1) in the case where data are to be recorded at the linear recording velocity equal to or higher than a first linear recording velocity, and wherein in the case where data are to be recorded at the linear recording velocity lower than the first linear recording velocity and higher than a second linear recording velocity, the number of pulses is set to one (1) at least when the shortest recording mark is to be formed and the number of pulses is set larger as the length of the recording mark to be formed becomes longer.” (Emphasis added.) Claim 19 recites, *inter alia*, a “write-once type optical recording medium . . . being recorded with data for . . . setting the number of pulses to one (1) in the case where data are to be recorded at the linear recording velocity equal to or higher than a first linear recording velocity, and setting the number of pulses to one (1) at least when the shortest recording mark is to be formed and the number of pulses is set larger as the length of the recording mark to be formed becomes longer in the case where data are to be recorded at the linear recording velocity lower than the first linear recording velocity and higher than a second linear recording velocity.” (Emphasis added.)

In claims 1 and 19, the number of pulses may be set to one in two cases: (1) when data are to be recorded at a linear recording velocity equal to or higher than a first linear recording velocity (hereinafter “the high linear recording velocity”), and (2) when data are to be recorded at a linear recording velocity lower than the first linear recording velocity and higher than a second linear recording velocity (hereinafter “the intermediate linear recording velocity”). Leaving aside the first case of the high linear recording velocity, which is not at issue in this Pre-Appeal Brief, Applicants submit that Ueki does not disclose, teach or suggest setting the number of pulses to one in the second case of the intermediate linear recording velocity.

The Examiner cites to Figures 1, 3, 7 and 8 of Ueki as disclosing that the number of pulses is set to one when recording at the intermediate linear recording velocity. Office Action, p. 8. Applicants strongly disagree that this feature is found in Ueki. Indeed, the Examiner acknowledges that, with respect to the intermediate linear recording velocity, Ueki only illustrates a waveform WA having two (2) pulses for a 4T recording mark and six (6) pulses for an 8T recording mark. Office Action, pp. 8-9. Based upon col. 22, ll. 24-28 of Ueki, the Examiner then asserts that Ueki teaches the use of recording marks having lengths between 3T

and 11T. Assuming this range of possible values (which is wider than that shown in the Figures), the Examiner then extrapolates from the two values in Figure 3 to an entire pattern of pulses that might be used by Ueki to make recording marks, hypothesizing that a 3T recording mark would be recorded with one pulse. Office Action, pp. 8-9.

Applicants submit that the Office Action has failed to show that Ueki teaches a case where data are to be recorded at the intermediate linear recording velocity with the number of pulses set to one. In fact, Ueki is completely silent with respect to the number of pulses that might be used to form a 3T recording mark at the intermediate linear recording velocity. Instead, the Examiner proposes an independently-derived extrapolation of the teachings in Ueki to arrive at the conclusion that a 3T recording mark would be recorded with one pulse. Applicants respectfully submit that this independently-derived extrapolation is improper. Moreover, Applicants submit that the Examiner improperly combines two disparate sections of Ueki in order to arrive at the above conclusion that the recording mark may have lengths between 3T and 11T. Col. 22, ll. 24-28 of Ueki relate to a test pattern signal generated by a test pattern generation circuit 64 at numerous power settings and are inapposite to the teachings of Figures 3, 7 and 8 of Ueki, which relate to recording waveforms. Indeed, Applicants have found no teaching or suggestion in Ueki that a 3T recording mark may be used, much less a 3T recording mark recorded with one pulse.

Independent claim 12 recites, *inter alia*, a “method for recording data in an optical recording medium wherein data are recorded in a write-once type optical recording medium . . . comprising a step of employing a pulse train pattern having a larger number of pulses whose level is set to a level corresponding to a recording power as a ratio of a track pitch TP of the optical recording medium to a diameter of a spot of the laser beam becomes smaller and modulating the power of a laser beam thereby to form a recording mark.” (Emphasis added.)

The Examiner cites to Figure 7 and col. 12, ll. 1-22 of Ueki as disclosing a pulse train pattern having a number of pulses that changes as a ratio of a track pitch TP to a diameter of a spot of the laser beam becomes smaller. Office Action, p. 9.

Applicants respectfully submit that this figure and passage of Ueki have no relevance to a pulse train pattern having a larger number of pulses as a ratio of a track pitch TP to a diameter of a spot of the laser beam becomes smaller. In fact, col. 12, ll. 1-22 of Ueki do not

refer to a track pitch TP of the optical recording medium at all. As is well understood in the art, a track pitch TP refers to a distance between adjacent tracks, and not to “the intervals [along a track] between recording marks,” as recited in the Office Action at p. 9. Moreover, col. 12, ll. 1-22 of Ueki also do not refer to a diameter of a spot of a laser beam. Contrary to the assertions in the Office Action at p. 9, a diameter of a spot of a laser beam does not vary relative to the speed of the disk. Since Ueki does not disclose any ratios of a track pitch TP to a diameter of a spot of a laser beam, Ueki certainly does not teach a pulse train pattern having a larger number of pulses as a ratio of a track pitch TP to a diameter of a spot of the laser beam becomes smaller.

Independent claim 13 recites, *inter alia*, an “apparatus for recording data in an optical recording medium wherein data are recorded in a write-once type optical recording medium . . . wherein a ratio of the bottom power to the recording power is set higher as the linear recording velocity becomes higher . . . wherein in the case where data are to be recorded at the linear recording velocity lower than the first linear recording velocity and higher than a second linear recording velocity, the number of pulses is set to one (1) at least when the shortest recording mark is to be formed and the number of pulses is set larger as the length of a recording mark to be formed becomes longer.” (Emphasis added.)

The Examiner cites to Figure 3 of Ueki as disclosing that, as the linear recording velocity becomes higher (*e.g.*, in waveform WB as compared to waveform WA), a ratio of the bottom power to the recording power is set higher. Office Action, p. 9. In particular, the Examiner asserts that, in waveform WB, since there is no bottom power interrupting the recording power within each recording mark, the claimed ratio of the bottom power to the recording power equals the ratio of the recording power to the recording power (*i.e.*, 1). Office Action, p. 9.

This unreasonable interpretation of the claim language in light of a mischaracterization of Ueki is legally improper. In fact, waveform WB of Figure 3 of Ueki illustrates a bottom power Pb between the recording marks, and the ratio of the bottom power Pb to the recording power Pp is shown as unchanged in waveforms WA and WB of Figure 3. The Examiner, however, impermissibly ignores the illustrated bottom power of waveform WB and instead interprets the distinctly claimed bottom power to read on the constant recording power of Ueki. This reading violates the maxim that the “broadest reasonable interpretation of the claims

must **also** be consistent with the interpretation that those skilled in the art would reach.”
M.P.E.P. § 2111.

In addition, for substantially the same reasons discussed above with respect to claims 1 and 19, Applicants submit that the Office Action has failed to show that Ueki teaches that data are recorded at the intermediate linear recording velocity with the number of pulses set to one.

Finally, all of the above independent claims relate to and recite write-once type optical recording media. However, in the passages of Ueki cited to in the Office Action, Ueki discloses a method for recording data to a phase change optical disk, a DVD-RW disk or another rewritable optical disk. *See* col. 9, ll. 60-62 and col. 13, ll. 5-9. Thus, Ueki’s disclosure pertains solely to rewritable optical disks, and not to the claimed write-once type optical recording media.

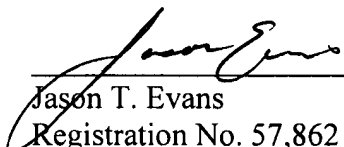
For at least the above reasons, it is respectfully submitted that Ueki does not anticipate independent claims 1, 12, 13 and 19, and the rejections of the dependent claims, which depend from the allowable independent claims, are similarly improper.

Rejections under 35 U.S.C. § 103(a)

The combination of Ueki and the other cited references does not teach, disclose or suggest the elements of independent claims 1, 12, 13 and 19 discussed above that are not taught by Ueki. Therefore, for at least the above reasons, it is respectfully submitted that the combination of Ueki and the other cited references does not render any of the pending claims obvious.

Respectfully submitted,

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